

10 November 2010  
EMA/COMP/29/2004 Rev.1  
Committee for Orphan Medicinal Products

## Public summary of opinion on orphan designation

### human monoclonal hepatitis B immunoglobulins for the prevention of hepatitis B re-infection following liver transplantation

*Please note that this product was withdrawn from the Community Register of designated orphan medicinal products in July 2010 on request of the sponsor.*

On 23 February 2004, orphan designation (EU/3/04/187) was granted by the European Commission to ICON Clinical Research (UK) Ltd, United Kingdom, for human monoclonal hepatitis B immunoglobulins for the prevention of hepatitis B re-infection following liver transplantation.

#### **What is hepatitis B re-infection following liver transplantation?**

Hepatitis is a general term that means inflammation of the liver. Hepatitis B is an infectious disease that affects the liver, caused by the hepatitis B virus. Symptoms may not be seen for 6 weeks to 6 months after infection. Sometimes people who have been infected do not look or feel ill. Others have mild flu-like symptoms, but some people can become very ill.

Most adults fully recover from the disease. But some people, particularly children, who may not have had symptoms, can remain infected. They are called hepatitis B virus carriers. Hepatitis B carriers are at risk of serious liver disease, such as cirrhosis (liver scarring) and liver cancer. In these cases of advanced liver disease, liver transplantation (getting a liver from another person) could become a necessity. However, since the virus is found in body fluids (such as blood) of hepatitis B virus carriers, the transplanted liver might become infected on its turn.

Hepatitis B re-infection following liver transplantation is chronically debilitating and life-threatening.

#### **What is the estimated number of patients at risk of developing the condition?**

At the time of designation, the number of patients at risk of hepatitis B re-infection following liver transplantation was estimated to be approximately 0.2 people in 10,000 in the European Union (EU)\*.

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\*Disclaimer: The number of patients affected by the condition is estimated and assessed for the purpose of the designation, for a European Community population of 385,000,000 (Eurostat 2002) and may differ from the true number of patients

This is equivalent to a total of around 7,700 people, which is below the ceiling for orphan designation, which is 5 people in 10,000. This is based on the information provided by the sponsor and the knowledge of the Committee for Orphan Medicinal Products (COMP).

### **What methods of prevention are available?**

Immunoglobulins were authorised in the Community for the prevention of hepatitis B re-infection following liver transplantation at the time of submission of the application for orphan drug designation, whilst other medicinal products with anti-viral activity were widely used.

Human monoclonal hepatitis B immunoglobulins might be of potential significant benefit for prevention of the condition especially since preliminary results have shown a high specific activity against the virus. These benefits will have to be confirmed at the time of marketing authorisation. This will be necessary to maintain the orphan status.

### **How is this medicine expected to work?**

Antibodies are proteins, which specifically recognise and attach themselves to certain foreign substances, such as proteins found on the surface of viruses or bacteria. The term “monoclonal” means that the antibody is produced using cells that have identical genes, so each cell producing exactly the same antibody molecules. Human monoclonal hepatitis B immunoglobulins are antibodies that neutralise hepatitis B virus. This would prevent that the liver transplant becomes infected.

### **What is the stage of development of this medicine?**

The effects of human monoclonal hepatitis B immunoglobulins were evaluated in experimental models. At the time of submission of the application for orphan designation, no clinical trials in patients who received liver transplantation due to chronic hepatitis B liver disease were initiated.

Human monoclonal hepatitis B immunoglobulins were not marketed anywhere worldwide for prevention of hepatitis B re-infection following liver transplantation or designated as orphan medicinal product elsewhere for this condition, at the time of submission.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 14 January 2004 recommending the granting of this designation.

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Opinions on orphan medicinal product designations are based on the following three criteria:

- the seriousness of the condition;
- the existence of alternative methods of diagnosis, prevention or treatment;
- either the rarity of the condition (affecting not more than 5 in 10,000 people in the EU) or insufficient returns on investment.

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affected by the condition. This estimate is based on available information and calculations presented by the sponsor at the time of the application.

Designated orphan medicinal products are products that are still under investigation and are considered for orphan designation on the basis of potential activity. An orphan designation is not a marketing authorisation. As a consequence, demonstration of quality, safety and efficacy is necessary before a product can be granted a marketing authorisation.

## **For more information**

Sponsor's contact details:

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For contact details of patients' organisations whose activities are targeted at rare diseases see:

- [Orphanet](#), a database containing information on rare diseases which includes a directory of patients' organisations registered in Europe.
- [European Organisation for Rare Diseases \(EURORDIS\)](#), a non-governmental alliance of patient organisations and individuals active in the field of rare diseases.

## Translations of the active ingredient and indication in all official EU languages<sup>1</sup>, Norwegian and Icelandic

Language	Active Ingredient	Indication
English	Human monoclonal hepatitis B immunoglobulins	Prevention of hepatitis B re-infection following liver transplantation
Danish	Humant monoklonalt hepatitis B immunoglobuliner	Forebyggelse af hepatitis B reinfektion efter levertransplantation
Dutch	Humane Monoclonale Hepatitis B Immunoglobulinen	Preventie van hepatitis-B herinfectie na levertransplantatie
Finnish	Ihmisen monoklonaaliset hepatiitti-B immunoglobuliinit	Hepatiitti-B uusintainfektion ehkäisyyn maksansiirron jälkeen
French	Anticorps monoclonaux humains de l'Hépatite B	Prévention de la réinfection par le virus de l'Hépatite B chez les patients ayant reçu une greffe du foie
German	Humane monoklonale Hepatitis B Immunglobulin	Vorbeugung einer Hepatitis B-Reinfektion nach Lebertransplantation
Greek	Ανθρώπινες Μονοκλωνικές ανοσοσφαιρίνες Ηπατίτιδας Β	Το HerpeX-B ενδείκνυται για πρόληψη της επαναμόλυνσης από ηπατίτιδα-Β μετά από μεταμόσχευση ήπατος
Italian	Immunoglobuline monoclonali umane dell'epatite B	Prevenzione della re-infezione da epatite B a seguito di trapianto epatico
Portuguese	Imunoglobulinas monoclonais humanas de hepatite B	Prevenção da re-infecção por hepatite B após transplante hepático
Spanish	Inmunoglobulinas monoclonales humanas de Hepatitis B	Prevención de la reinfección por hepatitis B en pacientes que se hayan sometido a un trasplante hepático
Swedish	Humana monoklonala hepatit B immunoglobuliner	Förebyggande av återinfektion av hepatit B efter levertransplantation.

<sup>1</sup> At the time of designation